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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SHAND, ROBERTA A	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,550	WYATT, RICHARD M.	
	Examiner	Art Unit	
	Roberta A. Shand	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 27* is/are rejected.

7)☒ Claim(s) *26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/26/02, 6/19/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 8, 14, 15, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Rouse (U.S. 5144293).

3. Regarding claim 1, Rouse teaches a multistage switch to which a logical link couples a destination, the logical link comprising a plurality of physical links (fig. 1, 26, 32, 34), the multistage switch comprising: a plurality of external ports (fig. 2, port), each physical link coupled to one of the plurality of external ports; and a matrix of coupled switch devices (fig. 1, 10, 12, 14), a frame received for the destination being forwarded through at least one of the switch devices to one of the physical links in the logical link, the switch device which receives the forwarded frame forwarding the frame based on the logical link toward less than all of the physical links of the logical link to reduce the number of subsequent switch devices through which the frame is forwarded (col. 5, lines 34-64).

4. Regarding claims 7, 14 and 21, Rouse teaches (fig. 1) at least two of the physical links are coupled to external ports on different switch devices.

5. Regarding claim 8, Rouse teaches a multistage switch, to which a logical link couples a destination, the logical link comprising a plurality of physical links (fig. 1, 26, 32, 34), the multistage switch comprising: a plurality of external ports (fig. 2, port), each physical link coupled to one of the plurality of external ports; and a matrix of coupled switch devices (fig. 1, 10, 12, 14), at least two of the physical links coupled to external ports on different switch devices; and means for forwarding a frame received for the destination through at least one of the switch devices to one of the physical links in the logical link based on the logical link toward less than all of the physical links of the logical link to reduce the number of subsequent switch devices through which the frame is forwarded (col. 5, lines 34-64).

6. Regarding claim 15, Rouse teaches a method for providing a multistage switch, to which a logical link couples a destination through a plurality of physical links (fig. 1, 26, 32, 34) comprising the steps of: providing a plurality of external ports, each of the physical links coupled to one of the external ports (fig. 2, port); providing a matrix of coupled switch devices, at least two of the physical links coupled to external ports on different switch devices (fig. 1, 10, 12, 14); forwarding a frame received for the destination to one of the physical links in the logical link through at least one of the switch devices; and in the switch device receiving the forwarded frame, based on the logical link, toward less than all of the plural links of the logical link to reduce the number of subsequent switch devices through which to forward the forwarded frame (col. 5, lines 34-64).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2-6, 9-13, 16-20, 22-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rouse in view of Kanuri (U.S. 6807179 B1).

9. Regarding claims 2, 9 and 27, Rouse does not teach a trunk table selector which selects a trunk table for the logical link to reduce the number of ports of the switch device through which to forward the frame.

10. Kanuri teaches (fig. 2 and abstract) a trunk table selector which selects a trunk table for the logical link to reduce the number of ports of the switch device through which to forward the frame. It would have been obvious to one of ordinary skill in the art to adapt this to Rouse system to enhance quality of service within the system.

11. Regarding claims 3, 10 and 17, Kanuri teaches (fig. 2) the trunk table for the logical link is shared by another logical link.

12. Regarding claims 4, 11, 18 and 25, Kanuri teaches (col. 2, lines 25-46) the switch device further comprises: flow hash logic which indexes a flow hash for the received frame dependent on a destination address and source address included in the received frame.

13. Regarding claims 5 and 12, Kanuri teaches (col. 2, lines 47-67) the switch device further comprises: an echo suppression table which includes an entry for each port, the entry selected dependent on the port receiving the frame and the entry ensuring that the frame is not forwarded to any member of the logical link on which it was received.

14. Regarding claims 6, 13 and 20, Kanuri teaches (col. 2, lines 47-67) the echo suppression table includes an entry for each external port at which a frame is received.

15. Regarding claim 16, Kanuri teaches (fig. 2 and abstract) the trunk table selector includes a pointer to the trunk table and the pointer selects the trunk table to use.

16. Regarding claim 19, Kanuri teaches (col. 2, lines 47-67) storing an echo suppression vector for each internal port; and selecting a vector dependent on the internal port receiving the frame so the frame is not forwarded to any member of the logical link on which it was received.

17. Regarding claim 22, Rouse teaches a method for forwarding received data for a logical link implemented in a switch device in a multistage switch, the multistage switch comprising a matrix of switch devices (fig. 1), the logical link coupling a destination through a plurality of output ports connected to the multistage switch (fig. 2), comprising the steps of:

18. Rouse does not teach upon determining that the received data is to be forwarded to a member of the logical link, selecting a trunk table associated with the logical link from a plurality of trunk tables, each trunk table including trunk table entries, each trunk table entry

including a bit for each internal output port of the switch device; computing a forward vector for the received data dependent on a selected trunk table entry for the received data, the forward vector indicating the internal output port through which to forward the received data; and forwarding the received data to the selected internal output port.

19. Kanuri teaches (figs. 2 and 3) upon determining that the received data is to be forwarded to a member of the logical link, selecting a trunk table associated with the logical link from a plurality of trunk tables, each trunk table including trunk table entries, each trunk table entry including a bit for each internal output port of the switch device; computing a forward vector for the received data dependent on a selected trunk table entry for the received data, the forward vector indicating the internal output port through which to forward the received data; and forwarding the received data to the selected internal output port (col. 5, line 24 – col. 6, line 55).

20. Regarding claim 23, Kanuri teaches (col. 5, line 24 – col. 6, line 55) the forward vector is computed by combining a trunk table entry from the selected trunk table, a physical forward vector and an echo suppression entry from a plurality of echo suppression tables.

21. Regarding claim 24, Kanuri teaches (col. 5, line 24 – col. 6, line 55) one of the plurality of echo suppression tables is selected by a trunk selector.

Allowable Subject Matter

22. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Shand whose telephone number is 571-272-3161. The examiner can normally be reached on M-F 9:00am-5:30pm.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

STEVEN NGUYEN
PRIMARY EXAMINER

Roberta A Shand
Examiner
Art Unit 2665